

REMARKS

Claims 1-19 were pending in this application.

Claims 1-19 have been rejected.

Claims 1, 3-7, 9-11, 13, 14, 17, and 18 have been amended as shown above.

Claim 20 has been added.

Claims 1-20 are now pending in this application.

Reconsideration and full allowance of Claims 1-20 are respectfully requested.

I. OBJECTION TO SPECIFICATION

The Office Action objects to the specification because the Abstract of the Disclosure was composed of multiple paragraphs. The Applicants have amended the Abstract to combine the paragraphs into a single paragraph. Accordingly, the Applicants respectfully request withdrawal of the objection to the specification.

II. OBJECTIONS TO CLAIMS

The Office Action objects to various informalities in Claims 3, 5, 6, 9, 11, and 13. The Applicants have amended these claims to correct the noted informalities. The Applicants have also corrected other informalities in these and other claims noted by the Applicants. Accordingly, the Applicants respectfully request withdrawal of the objections to the claims.

III. REJECTION UNDER 35 U.S.C. § 112

The Office Action rejects Claims 3, 5, 9, 11, 15, and 17 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter regarded as the invention. In particular, the Office Action asserts that Claims 3, 5, 9, 11, 15, and 17 intermix the terms “source” and “signal line.” (*Office Action, Page 3, Section 4, Second paragraph*). The Office Action also asserts that the language describing a “switch” in Claims 3 and 9 is indefinite. (*Office Action, Page 3, Section 4, Last paragraph*).

The standard for definiteness is whether a claim reasonably apprises those of skill in the art of its scope. (*MPEP § 2173; In re Warmerdam, 33 F.3d 1354, 1361, 31 U.S.P.Q.2d 1754, 1759 (Fed. Cir. 1994)*). Whether the claim leaves unclear the manner in which a recited feature may be implemented is irrelevant where the claim clearly covers all forms of implementation. (*MPEP § 2173.02; In re Warmerdam, 33 F.3d 1354, 1361, 31 U.S.P.Q.2d 1754, 1759 (Fed. Cir. 1994)*). Determining whether a claim is indefinite requires an analysis of whether one skilled in the art would understand the bounds of the claim when read in light of the specification. (*MPEP § 2173.02; Credle v. Bond, 25 F.3d 1566, 1576, 30 U.S.P.Q.2d 1911, 1919 (Fed. Cir. 1994)*). The claim is not indefinite if one skilled in the art would have no particular difficulty in determining whether the recited feature has been implemented. (*MPEP § 2173.02; In re Warmerdam, 33 F.3d 1354, 1361, 31 U.S.P.Q.2d 1754, 1759 (Fed. Cir. 1994)*).

First, the Office Action incorrectly asserts that elements 502 and 507 in Figure 5 of the Applicants’ specification respectively represent the “source” and “signal line” recited in the claims. The Applicants’ specification clearly recites that element 502 is a signal line. (*See, e.g.,*

Paragraph [00042]). When discussing other “signal lines,” the Applicants’ specification also clearly recites that a “source” provides a signal on a signal line. (*See, e.g., Paragraphs [00035] and [00036]*).

Based on this, Claims 3, 5, 9, 11, 15, and 17 properly use the terms “source” and “signal line.” Moreover, a person skilled in the art could easily identify the scope of these claims and have no particular difficulty in determining whether the recited feature has been implemented. As a result, the use of the terms “source” and “signal line” in Claims 3, 5, 9, 11, 15, and 17 is definite.

Second, the Applicants have amended Claims 3 and 9 to more clearly recite the operation of a “switch.” The Applicants respectfully submit that Claims 3 and 9 are definite and clearly recite the operation of a “switch.”

Accordingly, the Applicants respectfully request withdrawal of the § 112 rejection.

IV. **REJECTION UNDER 35 U.S.C. § 102**

The Office Action rejects Claims 1-19 under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 5,574,633 to Prater (“*Prater*”). The Applicants respectfully traverse this rejection.

A prior art reference anticipates a claimed invention under 35 U.S.C. § 102 only if every element of the claimed invention is identically shown in that single reference, arranged as they are in the claims. (*MPEP § 2131; In re Bond, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)*). Anticipation is only shown where each and every limitation of the claimed

invention is found in a single prior art reference. (*MPEP* § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985)).

Prater recites a multi-phase charge sharing technique for use in electrical circuits. (*Abstract*). In one embodiment, input/output (I/O) pads 313-613 are driven by pad drivers 314-614. (*Col. 4, Lines 9-16*). Transmission gates 330-630 are coupled to the outputs of the pad drivers 314-614 on one side and to a charge sharing line 36 on the other side. (*Col. 4, Lines 17-28*). The transmission gates 330-630 allow I/O pads 313-613 that are transitioning (from high-to-low or from low-to-high) to be coupled to the charge sharing line 36 and to be charged/discharged using the charge sharing line 36. (*Col. 4, Lines 45-65*).

Prater simply recites a mechanism where transmission gates are used to couple I/O pads to a charge sharing line. *Prater* lacks any mention of using “tri-state” circuits or other types of circuits to place a “signal line” in a “high impedance state.” In particular, *Prater* lacks any mention of using “tri-state” circuits or other types of circuits to place a “signal line” in a “high impedance state” to thereby “isolate” the signal line from its “source.” As a result, *Prater* fails to anticipate a “charge redistribution circuit” that “isolates [a signal] line from its source by placing said line in a high impedance state” as recited in Claim 1.

For these reasons, *Prater* fails to anticipate all elements of Claim 1. As a result, *Prater* fails to anticipate the Applicants’ invention as recited in Claim 1 (and its dependent claims). For similar reasons, *Prater* fails to anticipate all elements of Claims 7 and 13. As a result, *Prater* fails to anticipate the Applicants’ invention as recited in Claims 7 and 13 (and their dependent claims).

The dependent claims are patentable due to their dependence from allowable base claims and in light of their own recitations. For example, Claim 3 recites that the charge redistribution circuit includes a “transition detector” having two outputs, where one of the outputs “simultaneously” enables a “tri-state driver circuit to place the signal line in the high impedance state” and enables a “control switch to connect an output of the tri-state driver circuit to [a] floating virtual source/sink.”

The Office Action asserts that elements 56 and 58 in *Prater* represent “tri-state drives.” (*Office Action, Page 4, Section 6, Fourth paragraph*). However, *Prater* clearly recites that elements 56 and 58 are “2-1 multiplexors.” (*Col. 6, Lines 46-47*). The Office Action does not explain how a multiplexor that outputs one of two values anticipates a “tri-state driver circuit” recited in Claim 3. The Office Action also does not explain how a pair of multiplexors anticipates a “tri-state driver circuit” recited in Claim 3. In addition, the Office Action does not explain how the multiplexors 56 and 58 of *Prater* place a “signal line” in a “high impedance state” in order to “isolate” the signal line from its “source.” As a result, the Office Action fails to establish that elements 56 and 58 of *Prater* anticipate a “tri-state driver circuit” that places a “signal line” in a “high impedance state,” which “isolates” the line from its “source” as recited in Claim 3.

For these reasons, *Prater* fails to anticipate all elements of Claim 3. For similar reasons, *Prater* fails to anticipate all elements of Claim 9. As a result, *Prater* fails to anticipate the Applicants’ invention as recited in Claims 3 and 9 (and their dependent claims).

Accordingly, the Applicants respectfully request withdrawal of the § 102 rejection and

full allowance of Claims 1-19.

V. NEW CLAIM

The Applicants have added new Claim 20. The Applicants respectfully submit that no new matter has been added. The Applicants respectfully request entry and full allowance of Claim 20.

VI. CONCLUSION

The Applicants respectfully assert that all pending claims in this application are in condition for allowance and respectfully request full allowance of the claims.

SUMMARY


If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.

The Commissioner is hereby authorized to charge any fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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